

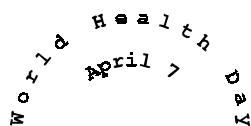


## Epidemiologic Notes & Reports

Volume 33 Number 3

March 1998

### World Health Day - Highlighted .



World Health Day is celebrated every year on April 7. The American Association for World Health in conjunction with the World Health Day Advisory Committee selected the theme ***Invest in the Future: Support Safe Motherhood*** to promote

World Health Day 1998 in the United States.

We study trends and past events to understand and develop interventions that lead to safer motherhood. The Department for Public Health has just published *Infant Mortality in Kentucky 1989-1995*. The report is of infant mortality for the 6 years and includes a descriptive study of deaths by race, age of mother, cause of death and other parameters. The publication includes a discussion of findings and recommendations for further action. **To request a copy of the report contact Nancy Yates at 502-564-3418.**

### Kentucky Infant Mortality 1989-1995

The infant mortality rate (IMR) is a recognized measure of the overall health status of a community. The national decline in infant mortality rates which began in the late 1950's has been an important public health event. In Kentucky, the infant mortality rate for the overall population (3,860,219 persons in 1995) has shown a consistent decline from 35.3 deaths per 1000 live births in 1950 to 7.5 deaths in 1995 (Table 1).

**Table 1. Kentucky Infant Mortality Rate 1950-1995**

Infant Mortality Rate	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
Kentucky	35.3	30.4	27.8	25.2	19.6	15.6	12.8	11.2	8.4	7.5
United States	29.2	26.4	26.0	24.7	20.0	16.1	12.6	10.6	9.2	7.5

### In This Issue . . .

Kentucky Infant Mortality 1989-1995 .....	1-2
Head Lice Update .....	3
Flu Surveillance Update.....	4
Immunization Satellite Broadcast .....	4
Selected Reportable Diseases .....	5
Toll-Free Hotline.....	6
Blood-Borne Pathogens	

The study examines trends in the infant mortality rate in Kentucky from 1989 through 1995 by race, age of mother, education of mother, trimester prenatal care began, birthweight, birth location, method of delivery, and cause of death. A linked birth and infant death file for years 1989 through 1995 was used for the analyses.

The decline in the infant mortality rate has continued during the time frame of this study. However, among nonwhites, who comprise approximately 8% of the total population, the infant mortality rate remains higher than for whites. In 1995, the rate was 7.3 deaths per 1000 live births for white infants and 9.0 deaths per 1000 live births for nonwhite infants. The white/nonwhite disparity appeared in all risk factors studied.

The infant mortality rate for babies born to teen-age mothers is higher than the overall mortality rate and showed no decline during this study period. The mortality rate for infants born to mothers ages 15 - 17 was 13.0 deaths per 1000 live births in 1995 as compared to the overall rate of 7.5 deaths per 1000 live births.

See INFANT MORTALITY

Page 2

## Kentucky Infant Mortality 1989-1995 (continued from page 1)

A higher infant mortality rate was observed for babies whose mothers had less than 12 years of education as compared to those whose mothers had more. In 1995, the rate for babies born to mothers with only 9 to 11 years of education was 11.0 deaths per 1000 live births compared to 4.9 deaths per 1000 live births of mothers who had a college education.

Low birthweight continues to be a major determinant in infant mortality. Infants weighing 1500 grams or less had extremely high mortality rates. In this group the mortality rate was 214.6 deaths per 1000 live births in 1995. The mortality rate for infants weighing 1501 - 2500 grams was 18.4 deaths per 1000 live births in 1995 as compared to the overall rate of 7.5 deaths per 1000 live births

(Table 2).

Infants born in a location other than a hospital had mortality rates which were more than double those of infants born in a hospital. For the small number of births in places other than a hospital, the infant mortality rate was 15.2 deaths per 1000 live births in 1995 as compared to the overall rate for the year of 7.5 deaths per 1000 live births.



Among encouraging findings, a consistent increase in the number of women making their first prenatal care visit during the first trimester of their pregnancy was observed. Percentages of mothers giving birth to live infants who made a first trimester visit increased from 76.2% in 1989 to 83.6% in 1995. Mortality rates for infants born to these mothers were lower than the overall average - 6.5 deaths per 1000 live births in 1995 (Table 3).

**Table 2. Infant Mortality Rate by Birthweight in Grams, Kentucky 1989-1995**

Weight (gms)	1989	1990	1991	1992	1993	1994	1995
0-1500	229.9	243.5	250.4	250.4	226.2	223.5	214.6
1501-2500	27.6	24.1	19.6	22.6	24.9	18.3	18.4
2501-3500	5.2	5.3	4.9	4.8	4.1	3.8	3.7
3501-4500	2.9	1.6	2.8	2.4	2.3	2.2	2.5
>4500	11.8	13.8	15.3	10.4	7.5	7.2	6.6

**Table 3. Infant Mortality Rate (IMR) by Trimester Prenatal Care Began, Kentucky 1989-**

IMR	1989	1990	1991	1992	1993	1994	1995
1st Trimester	7.3	7.0	7.0	6.7	6.7	6.4	6.5
2nd Trimester	10.1	9.9	10.0	8.7	7.8	7.9	9.7
3rd Trimester	11.2	10.6	8.0	10.4	10.0	14.4	7.4
No Care	88.8	51.4	73.0	68.2	75.2	62.9	80.6

During the study time, deaths from congenital anomalies decreased from 28.4% of total infant deaths (486) in 1989 to 27.4% of total infant deaths (391) in 1995. SIDS deaths decreased by 52.5% from a total of 99 infant deaths in 1989 to 47 infant deaths in 1995.

As in the nation, the effort to reduce the infant mortality rate is a public health priority. Resources need to be targeted toward preventing high-risk pregnancies, reducing the incidence of low birthweight, reducing birthweight-specific mortality, and reducing mortality during the postneonatal period. Progress continues toward meeting the Kentucky Year 2000 Public Health Objective of reducing infant mortality to no more than 7.0 deaths per 1000

live births.

## Head Lice Update

The Division of Epidemiology published guidelines for the control of head lice in the December, 1993 issue of *Kentucky Epidemiologic Notes and Reports*<sup>1</sup>. Today, the drug of choice remains the same, permethrin 1% (e.g., Nix). The next step is to use a pyrethrin with piperonyl butoxide (e.g., Rid) if there appears to be treatment failure with permethrin. Pyrethrins do not kill all unhatched nits and have no residual activity, therefore a second treatment is needed in 5 to 7 days to kill newly-hatched lice.<sup>2</sup> (Malathion, which was recommended in 1993, is no longer available in the U.S. A solution of 1% lindane [e.g., Kwell] has not been recommended for use since December 1988.) Following drug treatment, daily removal of lice and nits with a nit comb must be performed.

Ivermectin may be considered an alternative choice of treatment where there are treatment failures with 1% permethrin or pyrethrin with piperonyl butoxide and for head lice resistant to all other treatments. Ivermectin is an anti-parasitic drug, available in oral form only, used to treat strongyloidiasis and onchocerciasis. It is an approved drug, but considered investigational by the U.S. Food and Drug Administration for treating lice.<sup>3</sup> A single dose of 200 micrograms/kg has been reported to be highly effective with virtually no adverse effects.<sup>2</sup>

There are no research data available to assess the effectiveness of alternative treatments involving olive oil, mayonnaise, margarine, petroleum jelly and similar products in control of head lice. Detergents used to remove these extremely oily substances from the head and scalp can cause skin irritation. The use of substances like motor oil, gasoline, or kerosene are not recommended due to potentially harmful side effects.<sup>4,5</sup>

Practitioners need to be aware of possible "delusory parasitosis" (also known as cryptic infestations<sup>6</sup>), an emotional disorder in which a person has unwarranted belief that live organisms, such as mites or insects, are present on the body. One of the dangers of this disorder is excessive use of pesticides, medications or other toxic materials to rid the body of the imagined parasites.<sup>7</sup>

In the past year, Division staff have had reports of lice resistant to the permethrins and pyrethrins. There are nationwide reports of apparent treatment failures.<sup>4</sup> Richard Pollack, Ph.D., an entomologist and professor at Harvard School of Public Health, indicates that, "Failures may be due in part to: a) Misdiagnosis (no active infection, or misidentification); b) Non-compliance (not following treatment protocol); c) Resistance to the insecticide; and d) New infestation (lice acquired after treatment)."

According to Dr. Pollack, resistance has not yet been proven; studies are ongoing.<sup>8</sup>

Because head lice are not known to transmit communicable diseases in the United States, health departments are not given money to conduct control programs. The depth of involvement of Kentucky local health departments in the control of head lice in schools must be determined by individual health departments. Recommendations, particularly for control in schools, have been published in previous issues of *Kentucky Epidemiologic Notes & Reports*<sup>9,10</sup> and remain largely unchanged. The Kentucky Department of Education has adopted these recommendations and schools are responsible for enforcing their lice control programs.<sup>11</sup>

State and local health department staff are available for further consultation. Reprints of previous articles from *Kentucky Epidemiologic Notes and Reports* are available from the Communicable Disease Branch at 502-564-3261.

### REFERENCES

- 1 Kentucky Department for Public Health. Control of head lice. *Kentucky Epidemiologic Notes and Reports* 1993; 28 (10): 3-4.
- 2 The Medical Letter, Inc. Drugs for head lice. *The Medical Letter* 1997; 39 (992): 6-7.
- 3 The Medical Letter, Inc. Drugs for parasitic infections. *The Medical Letter* 1998; 40 (1017): 1, 5, 8, 10-11.
- 4 Consumers Union. Your health. A modern scourge: parents scratch their heads over lice. *Consumer Reports* 1998; 63(2): 62-63.
- 5 Pollack, R J. et al. Head lice information sheet. (Update 11/5/97) Harvard School of Public Health Web Page ([www.hsph.harvard.edu/headlice.html](http://www.hsph.harvard.edu/headlice.html))
- 6 Ibid, 4.
- 7 Pennington, N. Delusory parasitosis? *EOH Focus Michigan Department of Public Health* 1987; (Winter): 5-6.
- 8 Pollack, 6.
- 9 Kentucky Department for Health Services. Control of head lice. *Kentucky Epidemiologic Notes and Reports* 1991; 26 (9): 1.
- 10 Kentucky Department for Health Services. Control of head lice in schools. *Kentucky Epidemiologic Notes and Reports* 1985; 20 (11): 1-2.
- 11 Kentucky Department of Education. Control of head lice in schools. *School Health Services Manual* 1995: 50-54.

## Department Enhances Flu Surveillance



# Flu Surveillance Update

The Department for Public Health is collaborating with the Centers for Disease Control and Prevention (CDC) to enhance the identification of any cases of influenza A (H5N1)

that are imported from Asia. The surveillance plan was devised to minimize any disruption of the existing disease reporting and public health response systems.

An announcement of the new plan was sent in late February to the 33 members of the 1997-98 flu surveillance team and to 144 infection control practitioners located in Kentucky health care facilities. Practitioners were requested to begin hospital-based surveillance for influenza A (H5N1) using the following case definition:

### **Influenza A (H5N1) Screening:** (Patient to meet **ALL** of the criteria)

- ◆ Travel to Asia within 10 days prior to the onset of symptoms; and
- ◆ Fever, with temperature  $> 100^{\circ}$  F.; and
- ◆ Age:  $\geq 1$  year and  $\leq 60$  years; and
- ◆ Hospitalized with unexplained pneumonia or adult respiratory syndrome.

Any patient meeting the case definition should be tested by viral culture of nasopharyngeal and/or throat swabs for influenza infection by the Division of Laboratory Services (100 Sower Boulevard, Suite 204, Frankfort KY 40601-0001). All cultures testing positive for influenza virus will be referred to CDC for testing for influenza A (H5N1). If there is no resurgence of influenza A (H5N1) activity in Hong Kong and no spread of this virus is detected outside of Hong Kong, hospital-based surveillance can be discontinued September 30, 1998.

If you wish additional information contact Karen M. Adams, RN, Surveillance Nurse Consultant, at

**APRIL 6 - 12, 1998**  
**PUBLIC HEALTH WEEK**

Public Health Week was established in 1995 to recognize the contributions of public health and disease prevention services to America's well-being. The week-long event focuses public attention on state, community and individual efforts aimed at preventing public health problems, such as teenage pregnancies, food-borne illnesses and injury in the home. This year's theme is "Healthy people in healthy communities."



## Epidemiology and Prevention of Vaccine-Preventable Diseases



CDC  
Presents:

**A National Immunization Program & Public Health Training Network Satellite Broadcast**

**DATES: April 9, 16, 23, 30, 1998**

**Time: 12:00 Noon - 3:30 PM ET**

**Immunization training  
via satellite**

This live interactive program will provide the most current information available in the constantly changing field of immunization. For more information please contact Mary Sanderson, Kentucky Immunization Program at 502-564-4478.

**KENTUCKY EPIDEMIOLOGIC NOTES & REPORTS**

Printed With State Funds

by the

COMMONWEALTH OF KENTUCKY  
CABINET FOR HEALTH SERVICES  
DEPARTMENT FOR PUBLIC HEALTH  
275 EAST MAIN STREET  
FRANKFORT, KENTUCKY 40621

*Kentucky Epidemiologic Notes and Reports* is a free, monthly publication of the Kentucky Department for Public Health. Materials may be reproduced without permission. For more information call 502-564-3418.

**Rice C. Leach, MD**, Commissioner  
Department for Public Health

**Clarkson Palmer, MD, MPH**, Acting State Epidemiologist,  
and Acting Director, Division of Epidemiology  
& Health Planning

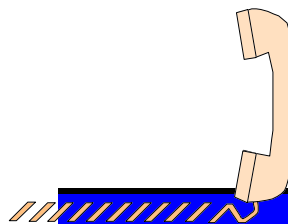
**Joyce A. Bothe**, Editor, Assistant Director,  
Division of Epidemiology

**Barbara E. Sonnen, RN, MS**, Co-Editor  
**Nancy Yates**, Managing Editor

**Contributors to this issue:**

Karen M. Adams, RN  
Peggy Wright, RN

## Toll-Free Hotline Available



### **Department of the U.S. Health & Human Services (HHS) LAUNCHES TOLL-FREE HOTLINE FOR CLINICIANS TREATING EXPOSURE TO BLOOD-BORNE PATHOGENS**

HHS Secretary Donna E. Shalala has announced a national hotline to assist clinicians in the counseling and treatment of health care workers with job-related exposure to blood-borne diseases and infections, including hepatitis and HIV infection. Such injuries occur daily among U.S. health care workers, according to HHS. **By calling 1-888-448-4911 from anywhere in the U.S. 24 hours a day** clinicians can gain access to the National Clinicians' Post-Exposure Prophylaxis Hotline (PEpline). The Pepline has trained physicians prepared to give clinicians information, counseling and treatment recommendations for workers who have needle-stick injuries and other serious occupational exposures. The hotline is a joint project of the Health Resources and Services Administration and the Centers for Disease Control and Prevention in collaboration with the San Francisco Department of Public Health and the University of California, San Francisco.